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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/047,252	03/24/1998	PASCAL MELLOIT	S1022/8047	3048

7590

07/17/2002

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EXAMINER

PENDLETON, BRIAN T

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

09/047,252

Applicant(s)

MELLOTT, PASCAL

Examiner

Brian T. Pendleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9 and 11-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al, US Patent 5,771,301 in view of Blackmer, US Patent 4,404,427. Fuller et al disclose a sound control system comprising first circuitry 204, attenuator 206, second circuitry (amplifier 242) which receives a control signal from volume control 212, and feedback circuitry including signal AC to DC converter and level shifter 208 and comparator 210. Fuller does not disclose that the feedback circuitry (AC to DC converter and level shifter 208) outputs a signal based on the root mean square value of the incoming signal. Fuller does teach that the circuit 208 is a signal rectifier which determines the level of the incoming signal. Level detection was necessary in the art of automatic volume control. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use a root mean square value level detector, which also is a signal rectifier, in the invention of Fuller et al since such detectors were simple to construct and well known in the art as evidenced by Blackmer. Blackmer discloses an audio signal processing system having a gain control path with level detector 50. As taught in column 3 lines 32 – 52, the amplitude of the incoming

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signal is detected using average, peak or root mean square techniques, particularly RMS. Therefore, there is motivation to use RMS level detection to accomplish gain control. Once level detection is done by circuit 208, the rectified signal is sent to comparator 210 to generate a gain control signal to be applied to attenuator 206. Thus, claims 1 and 17 are met. Per claim 3, the circuitry is analog circuitry. Regarding claims 7-9, the modified rectifying circuitry accomplishes RMS and the comparator 210 uses an current sourcing integrator. See figure 5(c). One of ordinary skill in the art would have realized such a system using digital components and/or software. It would have been obvious to do so, thus meeting claims 4, 5 and 6. Regarding claims 11-16 and 19-21, it was also obvious to use such an attenuating system to any system have audio signals with varying volume such as television, radio, and satellite systems.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al in view of Blackmer in further view of Dasilva. The combination of Fuller et al and Blackmer do not disclose a multiplying D/A converter in the attenuator circuit. Rather, the attenuator 206 is comprised of an integrator circuit with a network of resistors. Dasilva discloses a switched resistive control circuit (multiplying D/A converter). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the circuit of Dasilva in the modified invention of Fuller et al. As stated in the abstract, the use of the signal attenuator of Dasilva provides selectable levels of signal attenuation, which would allow more flexibility, a desirable feature.

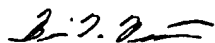
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Brian Tyrone Pendleton
July 15, 2002


XU MEI
PRIMARY EXAMINER